Lesson 52: Administering Medications via the Gastrostomy Tube (G-Tube) or Jejunal Tube (J-Tube)

I. Introduction to G-Tubes and J-Tubes

Tube Feedings – The resident who is unable to take food or fluids by mouth, or is unable to swallow, may be fed through a tube. Feeding tubes are used when food cannot pass normally from the mouth into the esophagus and then into the stomach. Cancer of the head, neck or esophagus is a common cause. Trauma or surgery to the face, mouth, head, neck or being in a comatose state are also reasons for tube feedings. The types of tubes most commonly used in a long-term care facility are nasogastric tubes, gastrostomy tubes and jejunal tubes.

A nasogastric (NG) tube is a tube that is placed through the nose into the stomach. ("Naso" is the medical term for nose and "gastric" means stomach.) It may also be called a Levine tube or abbreviated as NG tube. The QMA may not flush, check placement, or instill medications in an NG tube.

An NG tube may also be used to suction and remove fluids from the body. Do not give the resident, who has an NG tube, anything to eat or drink without checking with the nurse. Residents with feeding tubes are often NPO. NPO is the abbreviation meaning nothing by mouth.

A gastrostomy tube is a tube that is placed directly into the stomach for feeding. A small surgical opening is made through the abdominal wall into the stomach, and the tube is sutured to hold it in place. This type of tube is often used for a resident who may require tube feedings for an extended period of time. The abbreviation for a gastrostomy tube is ***G-tube***.

A jejunal tube (J-tube) is an artificial opening into the jejunum through the abdominal wall. It may be a permanent or temporary opening, and is used for feeding or medication administration.

Usually the NG tube or the G-tube/J-tube will be attached to an electronic feeding pump that controls the flow of fluid. Most pumps have an alarm that sounds when the flow is interrupted. The QMA must notify the nurse immediately if the alarm sounds.

The resident who has a feeding tube should be observed frequently. If the pump is not working properly, the resident may receive the wrong amount of nourishment or the fluid may enter too quickly. This can cause nausea, vomiting and aspiration.

The G-tube may become dislodged from the stomach, or the skin may become irritated at the site of insertion. Infection can occur if aseptic practices are not carefully followed.

The resident with a feeding infusing should not lie flat. The head of the bed should be elevated. Refer to facility policy. Some procedures will need to be changed slightly for the resident with a feeding infusing. For example, an occupied bed cannot be flattened to change the linen. The QMA's major responsibility concerning the resident with a feeding tube is to make regular observations and promptly report to the nurse any potential complication.

Formulas – The physician orders the type of formula and the amount to be infused. Most formulas contain protein, carbohydrates, fat, vitamins and minerals. Commercial formulas are common. The nurse is responsible for carrying out the order and administering the feeding formula.

II. Observations

A. Caregivers must be alert to signs and symptoms of aspiration. Other complications include diarrhea, constipation and delayed stomach emptying.

B. When a resident is receiving a tube feeding, you must report the following to the nurse immediately if observed:

1. nausea
2. complaint of discomfort or fullness
3. vomiting
4. diarrhea
5. distended (enlarged or swollen) abdomen
6. coughing
7. complaints of indigestion or heart burn
8. redness, swelling, drainage, odor or pain at the tube insertion site
9. elevated temperature
10. signs and symptoms of respiratory distress
11. increased pulse rate
12. complaints of flatulence

III. Comfort Measures – The resident with a feeding tube is usually NPO. Dry mouth, dry lips and sore throat are sources of discomfort. Some residents are allowed hard candy or gum. The resident's care plan will often include frequent oral hygiene, lubricant for the lips and mouth rinses. The nose and nostrils are cleaned every 4 to 8 hours as directed by the nurse and the care plan.

IV. Implementation of Medication Administration through a Gastrostomy Tube

A. For maximum control of suction, use a piston syringe rather than an asepto syringe.

B. The liquid for diluting the medication should be water unless otherwise specified.

C. Gather the necessary equipment for use at the resident's bedside. Liquids should be at room temperature.
   1. Administering cold liquid through the enteral tube can cause abdominal cramping.
   2. Use aseptic technique. Make sure the medicine cup, syringe, spoon and gauze are clean.

D. Select and measure, if necessary, each medication to be administered. Tablets and capsules are to be crushed and diluted. Refer to the list provided by the pharmacy regarding medications which should not be crushed. Liquid preparation should be used whenever possible to avoid obstructing the enteral tube. If the medication is in capsule form, (not a time released or sustained release medication), empty the content of the capsule into a separate medication cup and mix it with diluent. Pour liquid medications directly into the diluting liquid. Stir well with a spoon. If the medication is in tablet form, make certain the particles are small enough to pass through the eye at the distal end of the gastrostomy or jejunal tube.
   1. Keep in mind that you need enough diluent to dissolve the medication, but not too much, which could result in fluid overload in an older resident.
   2. Ensure medication particles do not adhere to spoon and alter dosage administered.

E. Dilute those liquids such as potassium which may be locally irritating.

F. Refer to the pharmacy or a medication reference as to medications which may be incompatible for enteral administration. Should incompatibility be noted, it will be necessary that medications with known incompatibility be administered separately with flushing of approximately 15-30 ccs of water before and after each medication.

G. Unless there is known incompatibility, medications may be crushed, mixed together and administered at the same time.

H. Perform INITIAL STEPS.

I. Fold back the bed linens to the resident's waist and drape the resident's chest with a towel or linen saver.
   1. Gently lift the dressing around the tube to assess the skin for irritation caused by gastric secretions.
   2. Report any redness or irritation to the licensed staff nurse promptly.

J. Raise the head of the bed so the resident is in the Fowler's position, as tolerated.

K. If the resident has a continuous feeding, shut off the pump and clamp the tube. When separating the tube from a pump, avoid contamination of the open end.

L. Check placement by auscultating the resident's abdomen about 3 inches below the sternum with the stethoscope; gently insert 10 cc of air into the tube. You should hear the bubble entering the stomach.
   1. If you hear this sound, gently draw back on the piston of the syringe. The appearance of gastric content implies that the tube is patent and in the stomach.
   2. If no gastric content appears, the tube may be against the lining of the stomach or the tube may be obstructed.

M. If you meet resistance as you aspirate for stomach content, stop the procedure. Notify the nurse promptly.

N. After you establish that the tube is patent and in the correct position, clamp or kink the tube.

O. Reattach the syringe, without the piston, to the end of the tube and open the clamp or unkink the tubing.

P. Flush the tube with approximately 30 ccs water.

Q. Administer the medication(s); flush with 30 ccs of water after the final medication is administered. Verify that medication cups are clear of any remnants of crushed pills or liquid medication.

R. Do not force any medication or fluid into the tube. Allow gravity to work as possible. If necessary, gentle pressure may be applied. Should the tube become obstructed and can not be successfully unplugged via milking of the tubing and/or gentle pressure, the licensed nurse should be notified for further instruction relative to potential omitted doses of medication.

S. Deliver the medication slowly and steadily. Don't allow the fluid to flow in too quickly.
   1. Due to age related changes in the G.I. tract of older adults, cramping could occur.

T. If the medication flows smoothly, slowly add more until the entire dose has been administered.
   1. If the medication doesn't flow properly, don't force it. It may be too thick to flow through the tube.
   2. If so, dilute it with water, being careful not to overload the resident with too much fluid.
   3. If you suspect the tube placement is inhibiting the flow, stop the procedure and re-evaluate placement of the tube.

U. Monitor the resident's reactions throughout the procedure. If the resident exhibits signs of discomfort, stop the procedure immediately.

V. When the water has instilled, quickly clamp or kink the tube. Following medication/flush administration, reconnect tubing and turn on pump, if applicable.

W. Remove the towel or linen saver and replace the bed linens.

X. Leave the resident in the Fowler's position or have the resident lie on the right side with the head of the bed slightly elevated. Have the resident maintain this position for at least 30 minutes, if tolerated, following the administration of medication.
   1. This facilitates the downward flow of the medication into the resident's stomach and assists to prevent esophageal reflux.

Y. Rinse the syringe utilized for medication instillation and store in a clean manner. Refer to facility policy.

Z. Perform FINAL STEPS.

AA. Be certain to document the amount of water used in the flushing process and the medications administered.

V. Other Key Points:

A. Be sure and check for G-Tube placement prior to administering medications if required per facility policy.

B. Flush the G-Tube after checking for placement, and before any medications are administered. Check order for amount of fluid to be used for the flush.

C. Placement does not have to be verified for a J-Tube.

D. Once daily, clean the peristomal skin with mild soap and water (or solution listed per specific physician order) and allow the skin to air-dry for 20 minutes to avoid skin irritation.

E. Clean the insertion site whenever spillage occurs.

F. To prevent instillation of too much fluid (more than 400 ml of liquid at one time for an adult), plan the medication instillation so that it does not coincide with the resident's bolus feeding.

G. Withhold the medications if there is 100 ml of residual obtained, and notify the nurse. Reinstill any gastric content obtained back into the tube.

H. An excessive amount of residual may indicate intestinal obstruction.

I. Oily medications, enteric coated medications, or sustained release tablets are contraindicated for instillation through an enteral tube.
J. Oily medications cling to the sides of the tube and resist mixing with the irrigating solution.
K. The therapeutic response of enteric coated or sustained release medications would be altered or decreased if the medications were crushed or removed from gelatin capsules before instillation through an enteral tube.

VI. Complications:
A. Aspiration of stomach contents and adverse medication reactions are potential concerns with enteral tube medication administration.
B. If medication is given in conjunction with a continuous enteral feeding, be alert for delayed or impaired medication absorption.
C. Report any adverse effects promptly to the nurse.
D. Should a resident be receiving a continuous tube feeding and you observe the resident to be coughing, complaining of fullness or discomfort, diaphoretic, short of breath or cyanotic, notify the nurse immediately as the feeding must be stopped and evaluation conducted by the licensed nurse.

VII. Documentation:
A. Note the medication administered, the dose, the date and time, and the resident's reaction.
B. If the resident refuses the medication, document the refusal and notify the nurse.
B. Note if the medication was omitted or withheld for any other reason.

NOTES: